

## ***Cyathocline manilaliana* (Asteraceae) - a new species from Andhra Pradesh, India**

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### **Abstract**

*Cyathocline manilaliana* is described as a new species from India. The taxonomic relationship with its related taxon i.e., *C. purpurea* (Buch.-Ham. ex D. Don) O. Ktze. is discussed.

### **INTRODUCTION**

*Cyathocline* Cassini, mostly a subtropical genus of 5 species (Fayed, 1979) is represented in India by only one species (Rao *et al.*, 1988). During floristic studies on Asteraceae of Andhra Pradesh, India, some interesting specimens were collected from the forests of Adilabad district. One of them has been found to be new and interesting species of *Cyathocline*, which is described here.

### **DESCRIPTION**

***Cyathocline manilaliana* Prabhakar Raju et Venkata Raju sp. nov.** (Fig. 1).

*Cyathocline purpurea* (Buch Ham. ex D. Don) O. Ktze. *proxime affinis*, sed differt propagulis vegetativis globosis albo-lanatis ad basin ramorum; foliis radicalibus caulinisque coriaceis; bracteis involucralibus sub-acuminatis, ad marginem non scariosis; antheris 2 mm longis basi profunde sagittatis cum auriculis acutis.

**Type :** INDIA : Andhra Pradesh, Adilabad Dist., Pochera stream, 21 February 1994, Venkata Raju and Prabhakar Raju 13230 (holotype, MH; isotypes, SKU).

Erect aromatic herb, up to 40 cm, stem simple, often branched from base, ultimate branches in dichotomies, pubescent with hairs and glands, axillary buds densely covered by persistent white silky hairs. Leaves simple, radical and cauline, cauline ones alternate, sessile, one veined from base, veins grooved on upper side, raised below; puberulous and glandular on both surfaces; coriaceous, uppermost ovate, lower spatulate or oblong, 1-13 x 0.4-3 cm, lyrate or deeply

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lobed, lobes triangular, dentate, acute. Heads few, in compound corymbs, terminal, pink-purple, to 4 mm, heterogamous, not rayed; pedicles to 3 mm, densely pubescent with hairs and glands. Involucral bracts 2-seriate, oblanceolate, 4 mm, shorter than florets, often recurved, one veined, pubescent with hairs, stalked and sessile glands on dorsal side, margins ciliate with multicellular hairs towards base, glandular towards apex, sub-acuminate. Receptacle cup-like, 3 mm across, glabrous. Female florets around 230, tubular, filiform, 3 mm, stalked glands densely and gradually spreading from base to half way up on the tube and sparsely on to the lobes, 3-lobed, lobes triangular, acute; style exerted, branches linear, obtuse. Ovary 0.8 mm, elliptic, glabrous, pappus absent. Bisexual florets 18-20, gradually expand from base, 4 mm, sparsely glandular, 5-lobed, lobes triangular, papillate along margins and at apex, glandular and unicellular hairy on dorsal side, acute. Stamens 5, anthers linear-oblong, 2-3 mm, hood broadly ovate, glandular on dorsal side, incurved, obtuse, base sagittately auricled, auricles longer than thickened part, sharp. Style slightly exerted, 3-4 mm, often undivided, branches flat, papillate on dorsal side, sub-acute. Pappus absent. Ovary minute. Achenes of female florets oblong or elliptic, occasionally narrowly rostrate at both ends, 0.6-0.8 mm, glabrous, of disc minute, around 0.2 mm, sterile.

*Etymology* : The species is named after Professor K.S. Manilal, who has made remarkable contributions to angiosperm taxonomy.

*Phenology* : Flowers from January to March; fruits from February-April.

*Ecology* : Undergrowth along the banks of seasonal stream in association with *Ageratum conyzoides* (Asteraceae).

*Distribution* : Known only from a single locality in Pochera fields (Adilabad District) at about 430 m (MSL) altitude. The species can be easily distinguished from its related taxon based on the following characters.

<i>Cyathocline purpurea</i>	<i>Cyathocline manilaliana</i>
White-woolly globose clusters (vegetative propagules) absent	White-woolly globose clusters present on stem bases
Leaves cauline only, chartaceous	Leaves both radical and cauline, coriaceous
Involucral bracts acute, margins scarious	Involucral bracts sub-acuminate, margins not scarious
Anthers 1-1.5 mm long	Anthers 2-3.5 mm long
Anter base obtuse	Anter base deeply sagittate with sharp auricles

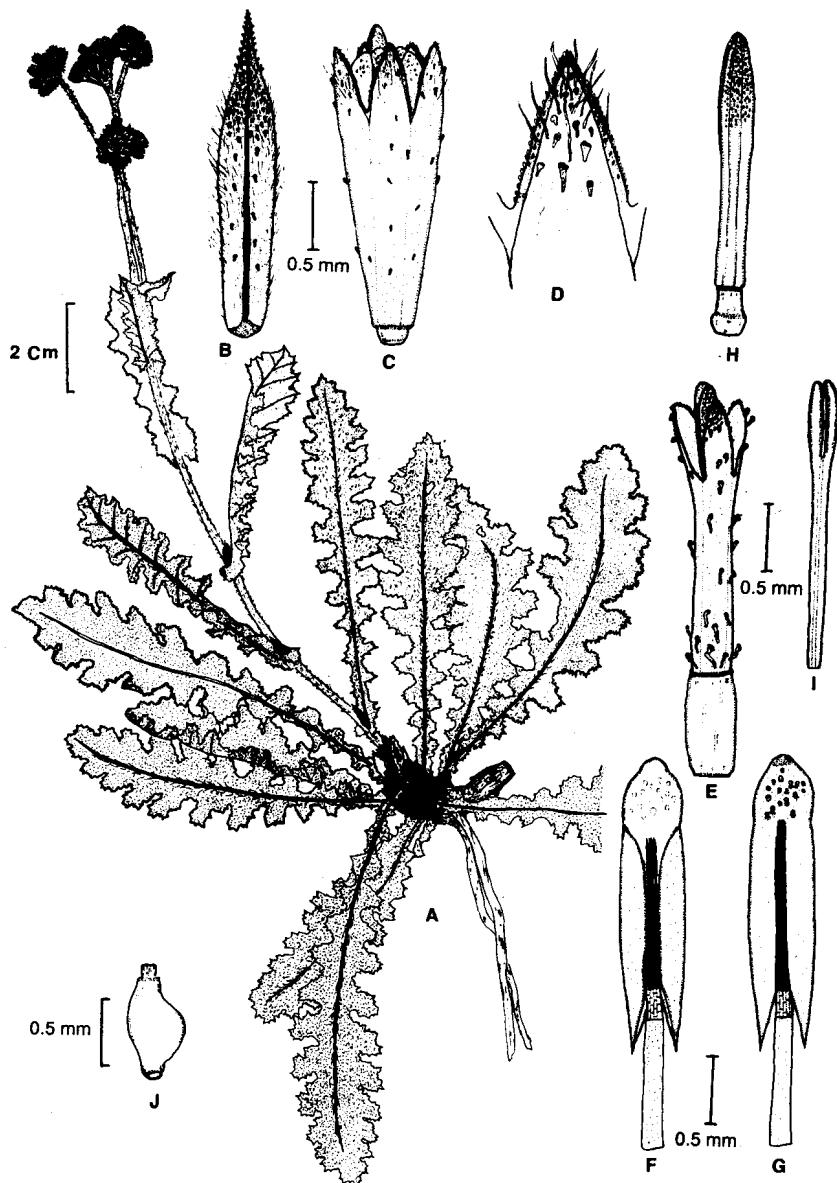
*Cyathocline maniliana*

Fig. 1 A. Habit, B. Involucral bract, C. Bisexual floret, D. Lobe of bisexual floret, E. Style of bisexual floret, F. Female floret, G. Style of female floret, H. Anthers, I. Achene of ray floret.

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